CLAIMS

[Claim 1]

A method for producing a magnetic disk, the method comprising a step of forming a magnetic recording layer on a glass substrate having a temperature of 550°C or higher,

wherein the glass substrate contains, in terms of mol%, from 60 to 75% of SiO_2; from 7 to 17% of Al_2O_3; 0% or more and less than 2% of B_2O_3; more than 18% and 26% or less in total of any one or more components of MgO, CaO, SrO and BaO, provided that a total content of the seven components is 95% or more, and further contains less than 1% in total of any one or more components of Li_2O, Na_2O and K_2O or does not contain these three components.

[Claim 2]

The method for producing a magnetic disk according to claim 1, wherein the glass substrate contains, in terms of mol%, from 10.5 to 20% in total of any one or more components of MgO and CaO.

[Claim 3]

The method for producing a magnetic disk according to claim 1 or 2, wherein the glass substrate contains, in terms of mol%, 6% or more of MgO.

[Claim 4]

The method for producing a magnetic disk according to any one of claims 1 to 3, wherein the glass substrate contains, in terms of mass%, more than 18% of Al_2O_3.

[Claim 5]

The method for producing a magnetic disk according to any one of claims 1 to 4, wherein the glass substrate has a value obtained by dividing the content (mol%) of SiO_2 by a total amount RO of contents (mol%) of MgO, CaO, SrO and BaO of 4.3 or less.

[Claim 6]

The method for producing a magnetic disk according to any one of claims 1 to 5, wherein the glass substrate has a specific elastic modulus of 32 MNm·kg or more.

[Claim 7]

The method for producing a magnetic disk according to any one of claims 1 to 6, wherein the glass substrate has an acid resistance index A of 0.025 nm/h or less.

[Claim 8]

The method for producing a magnetic disk according to any one of claims 1 to 7, wherein the glass substrate has an alkali resistance index B of 0.28 nm/h or less.

[Claim 9]

The method for producing a magnetic disk according to any one of claims 1 to 8, wherein a temperature T_2 at which a viscosity of the glass substrate is 10^2 dPa·s is 1,710°C or lower.

[Claim 10]

The method for producing a magnetic disk according to any one of claims 1 to 9, wherein the glass substrate has an annealing point of 650°C or higher.

[Claim 11]

A glass substrate for an information recording medium, containing, in terms of mol%, from 60 to 75% of SiO_2, from 7 to 17% of Al_2O_3, 0% or more and less than 2% of B_2O_3, and more than 18% and 26% or less in total of any one or more components of MgO, CaO, SrO and BaO, provided that a total content of the seven components is 95% or more, and further containing less than 1% in total of any one or more components of Li_2O, Na_2O and K_2O or not containing these three components.

[Claim 12]

The glass substrate for an information recording medium according to claim 11, wherein the information recording medium is a magnetic disk.

[Claim 1]

A method for producing a magnetic disk, the method comprising a step of forming a magnetic recording layer on a glass substrate having a temperature of 550°C or higher,

wherein the glass substrate contains, in terms of mol%, 63% or more and less than 71% of SiO_2; from 11 to 14% of Al_2O_3; 0% or more and less than 2% of B_2O_3; more than 18% and 26% or less in total of any one or more components of MgO, CaO, SrO and BaO, provided that a total content of the seven components is 95% or more, and further contains less than 1% in total of any one or more components of Li_2O, Na_2O and K_2O or does not contain these three components.

[Claim 2]

The method for producing a magnetic disk according to claim 1, wherein the glass substrate contains, in terms of mol%, from 10.5 to 20% in total of any one or more components of MgO and CaO.

[Claim 3]

The method for producing a magnetic disk according to claim 1 or 2, wherein the glass substrate contains, in terms of mol%, 6% or more of MgO.

[Claim 4]

The method for producing a magnetic disk according to any one of claims 1 to 3, wherein the glass substrate contains, in terms of mass%, more than 18% of Al_2O_3.

[Claim 5]

The method for producing a magnetic disk according to any one of claims 1 to 4, wherein the glass substrate has a specific elastic modulus of 32 MNm·kg or more.

[Claim 6]

The method for producing a magnetic disk according to any one of claims 1 to 5, wherein the glass substrate has an acid resistance index A of 0.025 nm/h or less.

[Claim 7]

The method for producing a magnetic disk according to any one of claims 1 to 6, wherein the glass substrate has an alkali resistance index B of 0.28 nm/h or less.

[Claim 8]

The method for producing a magnetic disk according to any one of claims 1 to 7, wherein a temperature T_2 at which a viscosity of the glass substrate is 10^2 dPa·s is 1,710°C or lower.

[Claim 9]

The method for producing a magnetic disk according to any one of claims 1 to 8, wherein the glass substrate has an annealing point of 650°C or higher.

[Claim 10]

A glass substrate for an information recording medium, containing, in terms of mol%, 63% or more and less than 71% of SiO_2, from 11 to 14% of Al_2O_3, 0% or more and less than 2% of B_2O_3, and more than 18% and 26% or less in total of any one or more components of MgO, CaO, SrO and BaO, provided that a total content of the seven components is 95% or more, and further containing less than 1% in total of any one or more components of Li_2O, Na_2O and K_2O or not containing these three components.

[Claim 11]

The glass substrate for an information recording medium according to claim 10, wherein the information recording medium is a magnetic disk.